

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-20 (canceled).

Please add the following new claims.

Claim 21 (new): A scanning probe microscope comprising:
a stationary frame;
a scanner supported by the stationary frame; and
a kinematic mounting mechanism supported by the scanner, the kinematic mounting mechanism comprising three protrusions and at least one magnet; and
a chip mount having a hole, a slot and a flat surface;
wherein the chip mount is held by said at least one magnet.

Claim 22 (new): The scanning probe microscope of Claim 21 wherein:
the scanner is mounted on a one dimensional translation stage, the one dimensional translation stage being attached to the stationary frame, the scanner being limited to linear motion in a direction of motion of the one dimensional translation stage; and
the scanning probe microscope further comprises a two dimensional flexure stage attached to the stationary frame and a sample chuck mounted on the two dimensional flexure stage, the sample chuck being movable by the two dimensional flexure stage only in a plane perpendicular to the direction of motion of the one dimensional translation stage.

Claim 23 (new): The scanning probe microscope of Claim 21 wherein:

the chip mount has a dimension larger than a corresponding dimension of said kinematic mounting mechanism.

Claim 24 (new): The scanning probe microscope of Claim 21 wherein:

a signal line supported by the kinematic mounting mechanism;

wherein at least one of the three protrusions comprises a conductive material and is in electrical contact with said signal line.

Claim 25 (new): The scanning probe microscope of Claim 24 wherein:

each protrusion comprises a ball.

Claim 26 (new): The scanning probe microscope of Claim 25 wherein:

said conductive material is stainless steel; and

two balls comprise ruby.

Claim 27 (new): The scanning probe microscope of Claim 26 wherein:

said ball comprising stainless steel has a height lower than said two balls comprising ruby; and

the height of the magnets is lower than each ball.

Claim 28 (new): The scanning probe microscope of Claim 27 wherein:

the heights of the three balls and the magnet are such that only the balls make contact with the chip mount while the magnet does not contact the chip mount.

Claim 29 (new): The scanning probe microscope of Claim 26 wherein:

said ball comprising stainless steel is in contact with said flat surface.

Claim 30 (new): A scanning probe microscope comprising:

a stationary frame;

a z scanner mounted on a one dimensional translation stage, the one dimensional translation stage being attached to the stationary frame, the scanner being limited to linear motion in a direction of motion of the one dimensional translation stage, a kinematic mounting mechanism supported by the z scanner, the kinematic mounting mechanism comprising three balls and a pair of magnets, and a chip mount having a hole, a slot and a flat surface, wherein the chip mount is attached to the kinematic mounting mechanism by the pair of magnets; and

a two dimensional flexure stage attached to the stationary frame and a sample chuck mounted on the two dimensional flexure stage, the sample chuck being movable by the two dimensional flexure stage only in a plane perpendicular to the direction of motion of the one dimensional translation stage.

Claim 31 (new): The scanning probe microscope of Claim 30 wherein:

the heights of the three balls and the magnets are such that only the balls make contact with the chip mount while the magnet does not contact the chip mount.

Claim 32 (new): The scanning probe microscope of Claim 31 further comprising:

a signal line supported by the z scanner;

wherein one ball is in electrical contact with said signal line also contacts said flat surface while two balls other than said one ball contact said chip mount at said hole and said slot.

Claim 33 (new): The scanning probe microscope of Claim 32 wherein:

said one ball comprises stainless steel; and

said two balls comprise ruby.

Claim 34 (new): The scanning probe microscope of Claim 30 wherein:

said magnets are mounted in opposite polarity.